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AUTHOR Tesfagiorgis, Gebre; Casey, Martha
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ABSTRACT

Enrollment patterns for the University of Wisconsin, Madison, for the period 1983-1995 are projected. Three possible scenarios, each representing a different set of assumptions concerning factors that affect undergraduate enrollment, are presented. The projections are based on demographic and secondary school enrollment data, and on historical patterns in the institution's enrollment. The cohort-survival technique was employed. It is projected that the university's undergraduate enrollment will probably decline slowly over the next 10 to 12 years and then begin to increase again. The decline is smaller than would be expected by Wisconsin demographics and is built on the assumption that the proportion of 18-year-olds who attend the university will continue to increase, and that the nonresident undergraduate enrollment and nontraditional age enrollment will remain constant or increase. The use of more optimistic assumptions regarding the enrollment of women, minorities, nonresident students and older students projects an even smaller decline. Patterns in the enrollments of these subgroups are examined in detail. Graduate enrollment is projected to remain at approximately the current level. Statistics for projected enrollments are appended. (Author/SW)

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UW-MADISONS'S ENROLLMENT PROSPECTS FOR THE 1980s AND EARLY 1990s

by Gebre Tesfagiorgis and Martha Casey

Abstract

This is a study of projected enrollment patterns for the University of Wisconsin-Madison for the period 1983 to 1995. Three possible scenerios, each representing a different set of assumptions concerning factors which affect undergraduate enrollment, are presented. The projections are based on demographic and secondary school enrollment data, and on historical patterns in the institution's enrollment. The general methodology used is a cohort-survival technique.

The model project that the University of Wisconsin-Madison's undergraduate enrollment will probably decline slowly over the next ten to twelve years and then begin to increase again. The decline is smaller than would be expected by Wisconsin demographics and is built on the assumption that the proportion of eighteen-year olds who attend the University will continue to increase, and that the non-resident undergraduate enrollment and non-traditional age enrollment will remain constant or increase. The use of more optomistic assumptions regarding the enrollment of women, minorities, non-resident students and older students, projects an even smaller decline, and patterns in the enrollments of these sub-groups are examined in detail. Graduate enrollment is projected to remain at approximately the current level.

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UW-MADISONS'S ENROLLMENT PROSPECTS FOR THE 1980s AND EARLY 1990s

by Gebre Tesfagiorgis and Martha Casey

Introduction

Overall enrollments at the UW-Madison are expected to gradually decline through the 1980s and early 1990s, reaching a low point in 1994 and turning upward after that. This pattern reflects the trend in the size of the college-age cohort in the State of Wisconsin as well as in the nation as a whole. The extent of the enrollment decline depends on the assumptions made in the projections, but, in general, UW-Madison's enrollment is projected to decline by 5 to 20 percent to reach the low point which will equal the enrollment levels experienced between 1971 and 1978.

Enrollments were projected for the UW-Madison under three scenarios using a cohort-survival methodology for the period of 1983 through 1995. Each scenario represents a different set of assumptions concerning factors which affect enrollment.

The results of the projections under the three scenarios are summarized in Table 1 and the accompanying graph, Chart 1:

A. Pessimistic Scenario. Using conservative assumptions, enrollments were projected to decline from 42,090 in Fall 1982 to 36,790 in 1990, a drop of 12.5 percent, and continue to decline to 33,700 in 1994, the enrollment low point, a total drop of 20 percent. Basically, this model assumes that the proportion of Wisconsin high school graduates who attend the UW-Madison will remain at the 1982-83 level (4.7 percent) throughout the projection period.

B. Likely Scenario. At the time these enrollment projections were made (February 1983), this scenario was judged the most likely enrollment outcome. It projects enrollments will decline to 39,530 in 1990, a drop of 6 percent, and to 37,940 in 1994, a total drop of 10 percent. Basically, this model assumes that the proportion of Wisconsin high school graduates who attend the UW-Madison will increase from about 4.7 percent in 1982 to about 5.8 percent in 1995, the last year of the projection period.

C. Optimistic Scenario. Under rather optimistic assumptions, enrollments were projected to fall to 41,635 in 1990, a drop of only one percent, and to 39,910 in 1994, a total drop of only 5 percent. Basically, this model assumes that the proportion of Wisconsin high school graduates who attend the UW-Madison will increase as in (B). In addition, minority students, women and non-traditional age students will attend in greater proportions than they do now.

The first part of this report deals with the general methodology and the assumptions common to the three scenarios. The second part discusses assumptions specific to each of the three scenarios and presents the enrollment projections. The third part discusses some of the conclusions which can be drawn from the data which has been obtained.

Table I

Enrollment Projections Under Three Scenarios, UW-Madison, 1983 - 1995

Year	(A) Pessimistic Scenario		(B) Likely Scenario		(C) Optimistic Scenario	
1982	42090		42090		42090	
1983	41701		41792		42307	
1984	40915		41230		42182	
1985	40072		40750		42175	
1986	39122		40276		42194	
1987	38257		39886		41856	
1988	37814		39823		41837	
1989	37502		39853		41913	
1990	36793	(-12.6%)	39533	(-6.1%)	41634	(-1.1%)
1991	36039		39166		41238	
1992	34920		38472		40490	
1993	34080		38009		39999	
1994	33699	(-19.9%)	37937	(-9.9%)	39914	(-5.2%)
1995	33877		38367		40210	

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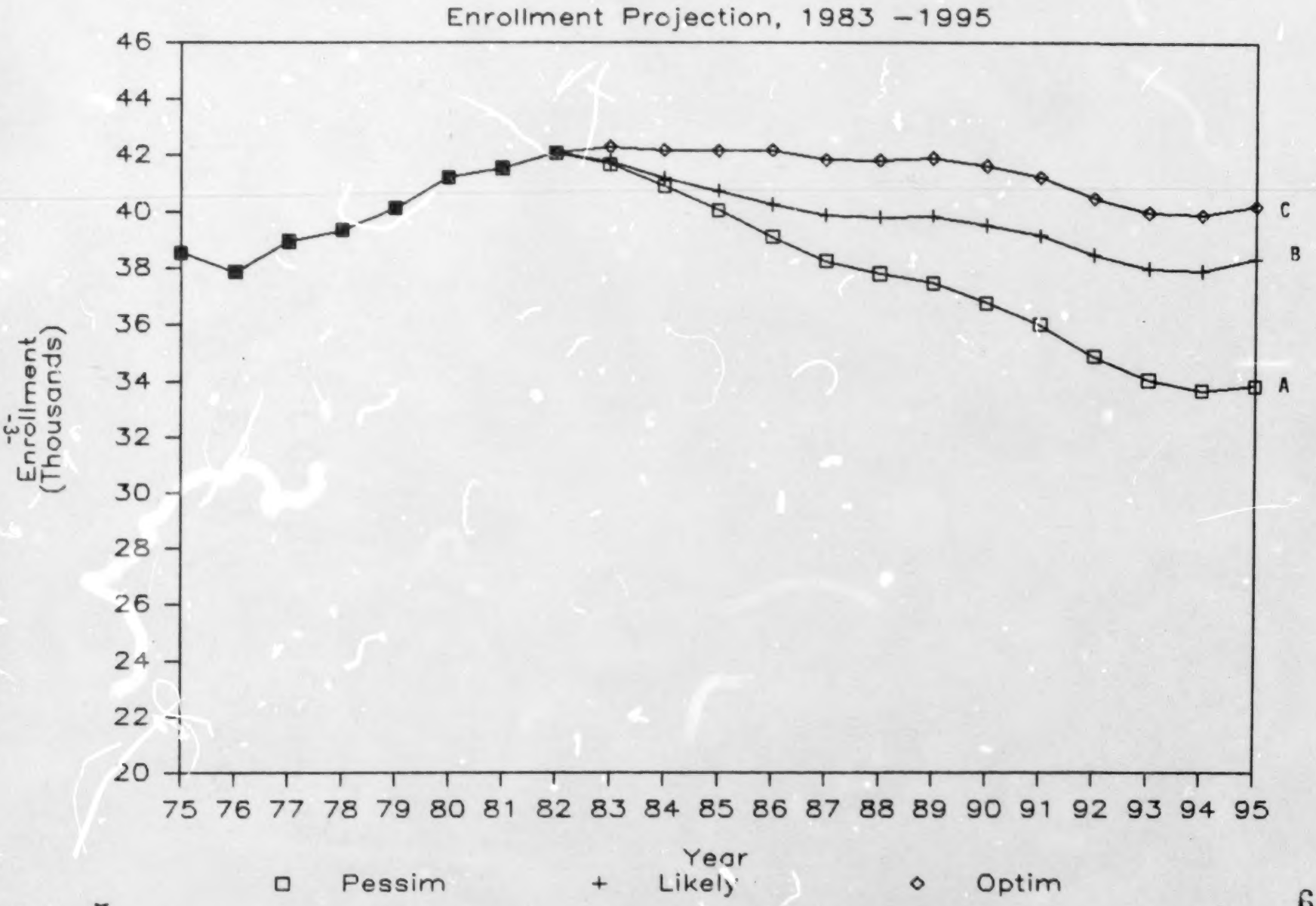
Chart 1


Enrollment Projection, 1983 –1995
46
44
42
40
38
36
34
32
30
28
26
24
22
20
Enrollment (Thousands)
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95
Year
C
B
A
Pessim
Likely
Optim

I. General Methodology and Assumptions Common to the Three Scenarios

The general procedure used in the enrollment projections which are summarized above was a combination of ratios and cohort-survival technique. Simple micro-computer programs facilitated the analysis and summarization of the data. The basic methodology was initially developed by the UW System Administration. In doing the three scenario projections, some modifications were made to existing practices. In particular, a data base was developed from public and non-public school enrollments (kindergarten through 12th grade), which gives more accurate data on the pool of students from which the UW-Madison can draw than does the previously used live-birth statistics. The data base derived from statewide school enrollments also contains more accurate data on the pool of minority students and women than can be obtained from live-birth statistics since the latter does not take into account migration in and out of Wisconsin. In short, the use of the statewide school enrollment data base made possible a more accurate analysis of trends in enrollments by ethnic heritage and by sex than would have been possible previously.

The general procedure used and the factors considered in performing the projections were the same under the three scenarios. It was the specific assumptions regarding attendance rates and similar factors that accounted for the difference in the results among the three scenarios. These specific assumptions are presented in Part II, while the assumptions common to the three scenarios are discussed in the remaining part of this section.

A. The Pool. Statewide 12th grade enrollments were used to represent the college-age cohort from which the UW-Madison draws its resident new freshmen. Statewide school enrollments by grade for the last thirteen years were obtained from the Department of Public Instruction (DPI) from which class-to-class survival ratios were calculated. (The school enrollments and survival ratios are presented in Appendix 1.) From the thirteen-year class-to-class survival ratios, the average of the five most recent years was selected as the best predictor of future ratios. These average ratios were applied to the Fall 1982 statewide kindergarten to 12th grade school enrollments in order to project statewide 12th grade enrollments from 1983 to 1994 (see Appendix 2.) The projected 12th grade enrollments in turn became the pool on which UW-Madison's resident new freshmen were based.

B. Resident New Freshmen. The critical ratio in this enrollment projection procedure is the relationship between the statewide 12th grade enrollment and UW-Madison's resident new freshman enrollment. By relating the 12th grade enrollment in a given year to UW-Madison's resident new freshman enrollment in the succeeding year, the rate of progression from high school to college was established. For the purpose of this report, we will refer to this rate as the attendance rate. Table 2 relates UW-Madison's resident new freshman to statewide 12th grade enrollments. As can be seen in column 4, the overall attendance rate has, in general, been increasing (though not steadily) in the last twelve years--from 4.12 percent in 1971 to 4.71 percent in 1982.

This historical trend became the basis for formulating assumptions on future attendance rates. Differences in the results of the three scenarios were primarily due to specific assumptions regarding this

Table 2

Trends in the Enrollment of UW-Madison's Freshman Categories and Statewide 12th Grade Enrollment Pool

Year	12th Grade Enrol. Pool (1-yr. lag)	Resident New Freshmen	Ratio Res. New Fresh to Pool	Non-Res. New Freshmen	Ratio of Non-Res.New Frsh.to Res	Total New Freshmen	Other Freshmen	Ratio Other Fresh to T.New Fresh	Total Freshmen
			%		%			%	
1971	77877	3212	4.12	568	17.68	3780	1001	26.48	4781
1972	80644	3506	4.35	713	20.34	4219	1009	23.92	5228
1973	81363	3342	4.11	921	27.56	4263	1062	24.91	5325
1974	80131	3432	4.28	962	28.03	4394	1074	24.44	5468
1975	81513	3600	4.42	1054	29.28	4654	1184	25.44	5838
1976	81495	3165	3.88	753	23.79	3918	935	23.86	4853
1977	84027	3411	4.06	806	23.63	4217	1049	24.88	5266
1978	83870	3746	4.47	937	25.01	4683	1035	22.10	5718
1979	83461	3850	4.61	986	25.61	4836	1102	22.79	5938
1980	81644	4043	4.95	978	24.19	5021	1210	24.10	6231
1981	79631	3654	4.59	1029	28.16	4683	1197	25.56	5880
1982	78636	3700	4.71	1097	29.65	4797	1122	23.39	5919
1983	75050								
1984	71206								
1985	67557								
1986	66933								
1987	65297								
1989	67102								
1989	63818								
1990	58122								
1991	55916								
1992	55020								
1993	55547								
1994	54125								
1995	58552								

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critical ratio. In the pessimistic scenario, the ratio remains constant at 4.71 percent, the 1982-83 value. In the likely and the optimistic scenarios, the attendance ratio of 4.75 percent (a three-year average) was increased by 1.5 percent a year until 1995 when the projected value is 5.76 percent.

C. Women and Minority Data. As a corollary to the overall attendance rate, the attendance rates of two sub-groups, namely, women and minority students, were examined. Statewide 12th grade enrollments were broken down into male and female students and related to their corresponding resident new freshman enrollments at the UW-Madison. Similarly, minority 12th grade enrollments were related to the resident new freshman enrollments to establish the attendance rate of minority students. (The minority student category includes Black Americans, Native Americans, Hispanic Americans and Asian Americans.) The trends in the attendance rates of women and minority students for the period between 1975-76 to 1982-83, for which school enrollment data by sex and ethnic distribution were available, are presented in Tables 3 and 4 and Chart 2. The following observations could be made regarding the data:

1. Since 1976, the attendance rate of women has been slightly lower than that of men by about a half percentage point.

2. The attendance rate of the minorities has been lower than that for the total population, 2.5 percent compared to 4.7 percent in 1982-83. The minority attendance rate is even lower if Asian Americans are excluded from this category and only the affected minority categories, Black Americans, Native Americans and Hispanic Americans, are considered (see Table 4).

Specific assumptions on the future attendance rates of women and minority populations also contributed to the differences in the results of the projections. In the pessimistic and the likely scenarios, women and minorities were assumed to maintain their relative 1982-83 level attendance rates. However, in the optimistic scenario, starting from 1983, the attendance rate of women was assumed equal to that of men and the attendance rate of minorities equal to that of the majority.

D. Non-Resident New Freshmen and Continuing Freshmen. The enrollment of non-resident new freshmen was either related to the enrollment of resident new freshmen (in the pessimistic scenario) or independently estimated (in the likely and the optimistic scenarios). The continuing freshmen were related to the total new freshmen (that is, the sum of the resident and non-resident new freshmen). The category of "continuing" freshmen actually consists of continuing, reentry and transfer freshmen. The historical enrollment trends in non-resident new freshmen and continuing freshmen are shown in Table 2. The ratio of the non-resident to the resident new freshmen has been increasing in the last five years from 23.5 percent in 1977 to 29.6 percent in 1982 (see column 6 of Table 2). The ratio of the continuing freshmen to the total new freshmen, however, has been steady in the range of 22.5 to 25.5 percent in the last decade.

The specific assumptions on future trends in the non-resident new freshmen and the continuing freshmen were additional factors, albeit not

Table 3

Trends in UW-Madison's Resident New Freshman Sub-Groups and Their Corresponding 12th Grade Enrollment Pools*, 1975-76 to 1982-83

Year	Total 12th Gr. Enroll.	Total Resident New Frsh	Percent	Male 12th Gr. Enroll.	Male Resident New Frsh	Percent	Female 12th Gr. Enroll.	Female Resident New Frsh	Percent
1975-76	81513	3600	4.42	40768	1866	4.58	40745	1734	4.26
76-77	81495	3165	3.88	40892	1579	3.86	40603	1586	3.91
77-78	84027	3411	4.06	41888	1731	4.13	42139	1680	3.99
78-79	83870	3746	4.47	41616	1960	4.71	42254	1786	4.23
79-80	83461	3850	4.61	41777	2018	4.83	41684	1832	4.39
80-81	81644	4043	4.95	40703	2086	5.12	40941	1957	4.78
81-82	79631	3654	4.59	40181	1954	4.86	39450	1700	4.31
82-83	78636	3700	4.71	39574	1968	4.97	39062	1732	4.43

*A one-year lag is incorporated in the 12th grade enrollment date.

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Table 4

Asian American and Other Minorities' Resident New Freshmen and Their Corresponding 12th Grade Pool*

Year	Minority 12th Gr. Enroll.	Minority Resident New Frsh	Percent	Asian 12th Gr. Enroll.	Asian Resident New Frsh	Percent	Other Minority 12th Gr.	Other Mino Res New Frsh	Percent
1975-76	2996	88	2.94	125	21	16.80	2871	67	2.33
76-77	3066	91	2.97	157	13	8.28	2909	78	2.68
77-78	3273	111	3.39	212	20	9.43	3061	91	2.97
78-79	3663	97	2.65	310	31	10.00	3353	66	1.97
79-80	3600	116	3.22	253	38	15.02	3347	78	2.33
80-81	3686	132	3.58	256	38	14.84	3430	94	2.74
81-82	3899	109	2.80	322	49	15.22	3577	60	1.68
82-83	4114	104	2.53	362	46	12.71	3752	58	1.55

*A one-year lag is incorporated in the 12th grade enrollment data.

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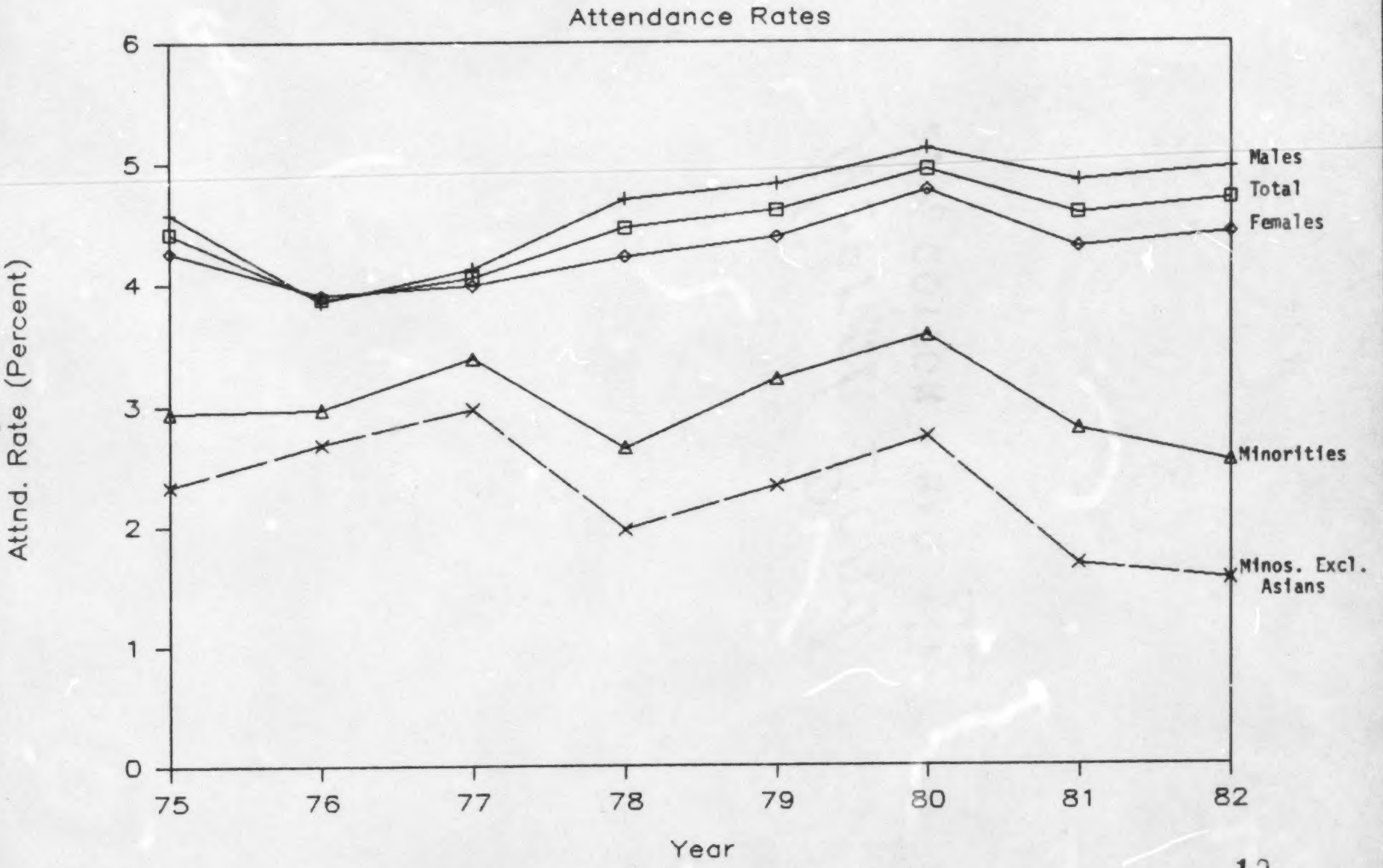
Chart 2


Attendance Rates
6
5
4
3
2
1
0
75
76
77
78
79
80
81
82
Year
Attnd. Rate (Percent)
-6-
Males
Total
Females
Minorities
Minos. Excl. Asians

as critical as the attendance rate, accounting for the differences in projection results under the three scenarios.

This completes the procedure for projecting the total freshman enrollments from the statewide 12th grade enrollment pool.

E. Class-to-Class Survival Ratios at the Undergraduate Level. Class-to-class survival ratios were applied to the total freshman cohort to project the enrollments for the sophomore, junior and senior classes, thus completing the total undergraduate picture. The historical class-to-class survival ratios at the UW-Madison are shown in Table 5. Retention rates at the three levels--freshman-sophomore, sophomore-junior and junior-senior--have been higher than 1.000 since 1971-72 because of UW-Madison's large number of transfer students from other institutions. Historically, there has been no consistent trend in the class-to-class survival ratios at the undergraduate level. This being the case, the average of the class-to-class survival ratios for the last two years were used throughout the projection period.

The above assumption on the class-to-class survival ratios was applied in all three scenarios.

F. Graduate, Professional and Special Enrollments. UW-Madison's graduate enrollment has been within 300 students of the 9,000 level for the last fifteen years, (see Table 6), a period marked by a growth in the population of graduate age. In most fields, UW-Madison has had many more qualified graduate applicants than it can accept, and essentially all departments have limited their graduate enrollment. The UW-Madison Graduate School expects the 9,000 level to continue into the future even though the population of graduate school age will decline somewhat. Since graduate enrollment did not increase as more people moved into the graduate age group, it is assumed it will not decline as the number in that age group gradually decreases. Of course, graduate enrollment would be affected by a change in the availability of federal funds to support graduate education or other policy changes, but since the future federal funding cannot be projected, a reasonable assumption is that graduate enrollment will remain at the current level.

Similarly the Law and Medical School enrollments are projected to remain stable at the current levels of 900 for Law and 650 for Medicine (see Table 6) unless there are changes in state or national policies which limit enrollment. Since the completion of these projections, the State of Wisconsin has mandated a 2.5 percent per year reduction in the size of the Medical School enrollment until a 10 percent total reduction is achieved in 1987-88. Veterinary Medicine is a newly established program at UW-Madison and is scheduled to admit 80 students in 1983-84, and increase to a total size of 320 by 1986.

"Specials" are students who are not seeking a degree and therefore are unclassified. Special student enrollments have been steadily increasing in the 1970s (see Table 6, column 3). The experience of the last three years, however, casts some doubt on the continuation of the increasing trend of the past. The Inter-College Programs now projects special student enrollment will increase by 50 students a year until it reaches the 3,100 level in 1987 and then remain constant as shown in Tables 7

Table 5

Trends in Class-to-Class Survival Ratios, UW-Madison

Enrollment

Year	Freshmen	Sophom.	Junior	Senior	Tot. UG
1961-62	4407	4251	3157	2912	14727
62-63	4616	4372	3635	3162	15785
63-64	5301	4595	3806	3750	17452
64-65	5358	6224	3992	3777	19351
65-66	6342	5637	4482	4035	20496
66-67	5847	6484	4849	4311	21491
67-68	5385	6554	5552	4875	22366
68-69	5716	6723	5886	5773	24098
69-70	5569	7042	6019	6279	24909
70-71	5412	6487	5818	6008	23725
71-72	4781	5750	6511	6035	23077
72-73	5228	5177	6552	6067	23024
73-74	5325	5629	6312	6362	23628
74-75	5468	5837	6518	6429	24252
75-76	5838	6022	6905	6742	25507
76-77	4853	6119	6874	7036	24882
77-78	5266	5983	7024	7230	25503
78-79	5717	5989	6625	7580	25911
79-80	5938	6249	6688	7553	26428
80-81	6231	6680	7086	7748	27745
81-82	5880	6777	7339	8131	28127
82-83	5919	6563	7466	8604	28552

Survival Ratios

Year	Frsh-Soph	Soph-Jr.	Jr.-Sr.
1961-62	--	--	--
62-63	0.992	0.855	1.002
63-64	0.995	0.871	1.032
64-65	1.174	0.869	0.992
65-66	1.052	0.720	1.011
66-67	1.022	0.860	0.962
67-68	1.121	0.856	1.005
68-69	1.248	0.898	1.040
69-70	1.232	0.895	1.067
70-71	1.165	0.826	0.998
71-72	1.062	1.004	1.037
72-73	1.083	1.139	0.932
73-74	1.077	1.219	0.971
74-75	1.096	1.158	1.019
75-76	1.101	1.183	1.034
76-77	1.048	1.141	1.019
77-78	1.233	1.148	1.052
78-79	1.137	1.107	1.079
79-80	1.093	1.117	1.140
80-81	1.125	1.134	1.158
81-82	1.088	1.099	1.147
82-83	1.116	1.102	1.172

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Table 6

Trends in Undergraduate, Special, Graduate and Professional Student Enrollments at UW-Madison.

Year	Undergr.	Special	Grad.	Law	Med.	Total
1971-72	23071	764	8713	911	478	33943
72-73	23024	1096	9281	950	515	34866
73-74	23628	1552	9239	938	574	35931
74-75	24252	1874	9305	879	605	36915
75-76	25507	2198	9319	878	643	38545
76-77	24882	2502	8943	882	648	37857
77-78	25503	2766	9114	897	665	38945
78-79	25911	2900	8969	903	665	39348
79-80	26428	3071	9059	901	670	40129
80-81	27745	2845	9095	907	650	41242
81-82	28127	2778	9113	884	656	41558
82-83	28552	2855	9131	907	645	42090

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and 8. (The average age of special students is 29 and the number of people in this age group will increase in the next ten years, so for the most part, there is expected to be no decline in the demographic pool for special students.)

Thus graduate, professional and special student enrollments are expected to remain near current levels, and the same figures for these enrollments have been added to each scenario to obtain total enrollments.

II. Specific Assumptions and the Projections Under Each Scenario

The general procedure and the basic assumptions common to all three scenarios have been discussed above (part I). Specifically, it was pointed out that (1) a single set of statewide 12th grade enrollments was used as the pool from which UW-Madison's resident new freshmen were projected, (2) class retention rates at the undergraduate level were set at the average rate of the last two years and assumed to remain constant for the duration of the projection period, and (3) future enrollments at the graduate, professional and special student levels were based on current figures and "best" estimates of future trends. In this section, the specific assumptions related to each scenario are stated and the projections themselves presented.

A. Pessimistic Scenario. At the time the projections were made (February 1983), this scenario represented the most conservative judgement on future enrollment prospects. The specific assumptions made under this scenario were as follows:

1. The attendance rate, that is, the ratio of resident new freshman enrollment at UW-Madison to Wisconsin's 12th grade pool, was assumed to be constant at the 1982 level of 4.71 percent (see Table 2, column 4) throughout the projection period.

2. The non-resident new freshmen were related to the resident new freshmen at the 1982 level of 29.65 percent (see table 2, column 6) so that the former will decline as the latter declines following the demographic trend in the pool.

3. The continuing freshmen were related to the sum of the resident and non-resident new freshmen at the 1982 level of 23.39 percent (see Table 2, column 9) so this enrollment also declines during the projection period.

The pessimistic scenario projections by class level are presented in Table 7, and in more detail in Appendix 3.

B. Likely Scenario. At the time the projections were made, this scenario represented the best judgement concerning future enrollments. The specific assumptions made under this scenario were as follows:

1. The attendance rate of 4.75 percent was based on the average of the last three years (1980-81 to 1982-83) and was increased by 1.5 percent per year (multiplied by 1.015 in each succeeding year) starting with 1983-84. The 1.5 percent is a factor that represents

Table 7

UW-Madison's Enrollment Projections Under the Pessimistic Scenario, 1983 - 1995. (constant at 1982 rate)

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
12th Gr.Pool*	78636	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552
Freshmen	5919	5649	5360	5085	5038	4915	5051	4804	4375	4202	4141	4181	4074	4407
Sophomore	6563	6522	6225	5906	5603	5551	5416	5566	5293	4821	4630	4563	4607	4489
Junior	7466	7220	7175	6848	6498	6164	6107	5958	6123	5824	5304	5094	5020	5068
Senior	8604	8660	8375	8323	7943	7537	7150	7084	6911	7102	6755	6152	5909	5823
Total Undergrad.	28552	28051	27135	26162	25082	24167	23724	23412	22703	21949	20830	19990	19609	19787
Special	2855	2900	2950	3000	3050	3100	3100	3100	3100	3100	3100	3100	3100	3100
Master's	4793	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800
Doctoral	4338	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300
Total Graduate	9131	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100
Law	907	920	920	920	920	920	920	920	920	920	920	920	920	920
Medical	645	650	650	650	650	650	650	650	650	650	650	650	650	650
Vet. Med.	0	80	160	240	320	320	320	320	320	320	320	320	320	320
TOTAL ENROLLMENT	42090	41701	40915	40072	39122	38257	37814	37502	36793	36039	34920	34080	33699	33877

*A one year lag is incorporated in the 12th grade pool data.

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the positive effects on enrollment of factors such as increased sibling spacing and higher educational attainment of parents as well as an increasing enrollment of non-traditional students.

2. The non-resident new freshmen enrollment was assumed to remain at approximately the current level throughout the projection period and not to be affected by the demographic decline of the pool. A constant number of non-resident freshmen (1,035) was included throughout the projection period.

3. The continuing freshmen enrollment was related to the sum of the resident and non-resident freshmen enrollments, derived in (1) and (2) above, at the 1982 level of 23.39 percent.

The likely scenario projections by class level are presented in Table 8, and in more detail in Apperdix 4.

C. Optimistic Scenario. The specific assumptions made under the optimistic scenario were as follows:

1. Additional students beyond those included in the likely scenario resulted from the following assumptions:

   a. The attendance rate of females was set equal to that of the males starting in 1983-84 instead of using the observed lower attendance rate for females (4.58 percent, based on a three-year average) compared with males (5.06 percent, based on a three-year average). (Details of this calculation are presented in Appendix 5.) This assumption generated about 150 to 180 more resident new freshmen than were projected in the single-pool approach in the likely scenario.

   b. The attendance rate of the minority resident students was set equal to that of the majority starting in 1983-84 instead of using the observed lower attendance rate for minorities (3.01 percent, based on a three-year average) compared with the majority's (4.91 percent, based on a three-year average). (Details of this calculation are presented in Appendix 6.) This assumption generated 60 to 70 more resident new freshmen than were projected in the single-pool approach in the likely scenario.

   c. Instead of incorporating non-traditional students (age 25 and older) into the college-age projection as in the likely scenario approach, a separate pool for the non-traditional students was developed. This approach took into account the demographic fact that the number of Wisconsin residents in the 25 and over age group will increase by 13 percent by 1990 while the 18-22 year old population will decrease by 21 percent. (See Appendix 7 for details of the calculation.) This approach projects the number of older undergraduate students will increase by 300-400 from the current level in the late 1980s and early 1990s. The likely scenario could also include an increased number of older undergraduates as one of the factors accounting for the increased attendance rate, but in this scenario, older undergraduates are specifically factored in.

Table 8

UW-Madison's Enrollment Projections Under the Likely Scenario, 1983 -1995

(3-yr. av. * 1.015)

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
12th Gr.Pool*	78636	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552
Freshmen	5919	5740	5575	5416	5439	5398	5576	5427	5113	5023	5018	5111	5069	5440
Sophomore	6563	6522	6325	6143	5968	5993	5948	6144	5980	5634	5535	5529	5632	5585
Junior	7466	7220	7175	6958	6758	6566	6593	6544	6760	6579	6198	6089	6083	6196
Senior	8604	8660	8375	8323	8071	7839	7616	7648	7590	7841	7631	7189	7063	7056
Total Undergrad.	28552	28142	27[illegible]	26840	26236	25796	25733	25763	25443	25076	24382	23919	23847	24277
Special	2855	2900	2950	3000	3050	3100	3100	3100	3100	3100	3100	3100	3100	3100
Master's	4793	4300	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800
Doctoral	4338	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300
Total Graduate	913[illegible]	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100
Law	907	920	920	920	920	920	920	920	920	920	920	920	920	920
Medical	645	650	650	650	650	650	650	650	650	650	650	650	650	650
Vet. Med.	0	80	160	240	320	320	320	320	320	320	320	320	320	320
TOTAL ENROLLMENT	42090	41792	41230	40750	40276	39886	39823	39853	39533	39166	38472	38009	37937	38367

*A one year lag is incorporated in the 12th grade pool data.

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Table 9

Summary of Enrollment Projections Under the Optimistic Scenario, 1983 - 1995

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
12th Gr. Enrollmt.*	78036	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552
Projections Under Likely Scenario.....	42090	41792	41230	40750	40276	39886	39823	39853	39533	39166	38472	38009	37937	38367
Add-on Due to:														
Equal Attn. Rate - Females	--	225	464	719	1018	995	992	993	976	957	922	898	894	917
Equal Attn. Rate - Minorit	--	88	181	280	396	386	385	385	381	373	360	351	348	357
More Older Students	--	202	307	426	504	589	637	682	744	742	736	741	735	569
Projections Under Optimistic Scenario	42090	42307	42182	42175	42194	41856	41837	41913	41634	41238	40490	39999	39914	40210

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*A one-year lag is incorporated in the 12th grade pool data

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2. The assumptions about non-resident new freshmen and continuing freshman enrollments, were the same as in the likely scenario (B).

The projections under the optimistic scenario are summarized in Table 9 which shows exactly how much the assumptions regarding women, minorities and older undergraduate students would add to the likely scenario projections.

III. Discussion of Findings

Projection versus Demographic Decline. In the next decade, the enrollment drops to be experienced by the UW-Madison are expected to reflect but certainly not duplicate the demographic declines. In the period 1982 to 1990, the likely scenario projects UW-Madison will decline by only 6 percent, in spite of a 21 percent decrease in the 18 to 22 year old pool, and a 25 percent decrease in 12th grade enrollments. One reason the projected enrollment decline differs from demographics is the graduate and professional students, 25 percent of the total enrollment, for whom no decline is projected. In the likely scenerio, the undergraduate enrollment decline is projected to be about 11 percent during this period. The difference between the demographic decline of 21 percent and the projected enrollment decline of 11 percent is accounted for by a projected increase in the percentage of high school graduates enrolling in the university, and by a growing enrollment of non-traditional students. In the pessimistic scenario, the undergraduate enrollment decline of 20 percent between 1982 and 1990 closely mirrors the demographic decline.

Undergraduate Minority Enrollment. Since the birth rate for minorities has not been declining as it has for the majority, an initial question was whether an increasing pool of minority students would have an effect on the overall UW-Madison enrollment levels. Note in Table 3 that the 12th grade enrollment of minorities has increased from 2,996 in 1975-76 to 4,114 in 1982-83, and school enrollments suggest that the pool will remain at about the current level for the duration of the projection period. Therefore, a model was developed which projects majority and minority enrollments from two separate pools, as shown in Appendix 6, so that differences in the majority and minority birth rates could be taken into account. The two-pool model projects only one percent higher enrollment in 1990 than the one-pool model. In short, because the number of minorities is small, its impact on overall enrollment is also small even when the minority attendance rate is assumed equal to the majority's.

The availability of data on the enrollment of minority students in Wisconsin high schools did yield some interesting results regarding trends in minority student enrollment at the UW-Madison. In spite of a 37 percent growth in the pool since 1975-76, the enrollment of UW-Madison minority resident freshman grew by only 18 percent (from 88 to 104) in this period. This difference must be due to a decrease in the attendance rate of minority students as is documented in Tables 3 and 4 and Chart 2. Minority attendance rates have always been lower than majority attendance rates, 2.9 percent compared with 4.4 percent in 1975-76, but majority attendance rates have risen in recent years while since 1980 minority attendance rates have actually fallen. Minority attendance rates showed a general upward trend from 1975-76 to 1980-81 (2.9 percent to 3.6 percent), but have declined since then so that the

1982-83 attendance rate of 2.5 percent is the lowest ever. Excluding Asian Americans, for whom the attendance rate is 10 percent, the picture for minority attendance is even more bleak. The attendance rate increased from 2.3 percent in 1975-76 to a high of 2.7 percent in 1980-81 and has now fallen to 1.5 percent (compared with 4.7 percent for the current majority attendance rate).

The University of Wisconsin Regents have set a goal for UW System minority enrollment which assumes that minority attendance rates will equal majority attendance rates by 1987. The data presented here serve to quantify the current discrepancies between majority and minority attendance rates, and indicate that the decreasing trend in minority enrollment is not a reflection of a decreasing pool, but a reflection of decreasing attendance rates.

Undergraduate Female Enrollment. For the last four years, more than half of the undergraduate students in the UW System have been female; however, the percentage for the UW-Madison has been between 46 and 47 percent. Similarly, the percentage of female resident new freshmen peaked at 50.0 percent in 1976, but has been below that level since then (46.8 percent in 1982-83). The decline is mainly due to the fact that female attendance rates have not risen as rapidly as male attendance rates since 1976, a point at which the attendance rates were equal at 3.9 percent for the two sexes. The attendance rate for males then began to rise more rapidly than for females, reaching a high point of 5.1 percent in 1980-81, while the female attendance rate only rose to 4.8 percent, and has generally been up to half a percentage point lower than that for males (see Chart 2). In addition to the attendance rate effect, there has been a slightly more rapid drop in the number of females enrolled in the 12th grade compared with males (see Table 3).

If the female attendance rate would increase to equal that of males, as it did in 1976, (although there is no actual evidence such an increase will occur), there would be a significant impact on the UW-Madison's projected undergraduate enrollment. Such an assumption has been incorporated into the optimistic scenario projection and by itself resulted in a projected enrollment for 1990 about two percent higher than in the likely scenario.

Non-Resident Undergraduate Enrollment. Total non-resident enrollment has risen 46 percent at the UW-Madison in the last ten years, from 3,622 in 1972-73 to 5,290 in 1982-83. Since the resident undergraduate population has grown by only 20 percent since 1972-73, the proportion of non-residents has increased from 15.7 percent in 1972-73 to 18.5 percent in 1982-83.

In general, the trends of non-resident new freshmen show a similar growth pattern. Again, the number of non-resident new freshmen has been increasing more rapidly than the number of residents, from 753 in 1976-77 to 1,097 in 1982-83 (see Table 2). The non-residents were 16.6 percent of the total freshman in 1972-73 and now are 22.8 percent.

Previously, enrollment projections had linked non-resident freshman enrollment to that of resident freshman enrollment, since the assumption was that Wisconsin's demographic picture would generally mirror the national one. However, the 45 percent increase in the non-resident new freshmen compared to only 17 percent in the residents in the last six years suggested that the number of non-resident new freshmen was not likely to be linked to the pool of eighteen-year olds in the state of Wisconsin. The pool of eighteen-year olds

peaked nationally and in Wisconsin in 1977, and has been declining since then. Therefore, in these enrollment projections, only in the pessimistic scenario were the non-resident new freshmen numbers assumed to be linked to the resident number. In the likely and optimistic scenarios, the number of non-resident new freshmen were assumed to remain at a constant level through 1995. In other words, it is assumed that demographics will not determine UW-Madison's non-resident enrollment, but it will be determined by such factors as tuition level for private versus public universities and institutional and programmatic reputations. (Early figures for the 1983-84 non-resident enrollment show that numbers are up by a considerable amount and a projection which assumes an increase in the number of non-residents in the next decade may actually be the most realistic projection.)

Undergraduate Enrollment of Non-Traditional Age Students. Although the pool of traditional age students in Wisconsin will decline by 21 percent between 1982 and 1990, the pool of non-traditional age students (age 25 and over) will increase by 13 percent in the same period (see Appendix 8). Moreover, Dane County's pool of persons aged 25 and over will increase 20 percent in that period, considerably more than the statewide figure. By 1990, persons in the 25 and over age group will constitute 64 percent of Dane County's population, compared with the current 58 percent.

These data suggest that the enrollment of non-traditional age students at the UW-Madison is the one segment of UW-Madison's population which is likely to remain at least constant and probably increase. In order to quantify the probable increase in the number of non-traditional age undergraduate students, the two separate pools approach was again adopted (see Appendix 7). If one takes into account the increasing population of older students and assumes that the current proportion of the pool (0.3 percent of the pool) will attend UW-Madison, the number of undergraduates 25 and older, is expected to rise from the current 2,800 to 3,100 by 1990 and then decline again to about 2,900 by 1995. In other words, in a period when the traditional age enrollment could decline by 11 to 21 percent, the older students will increase by 13 percent or more. The two-pool approach predicts a UW-Madison undergraduate enrollment in 1990 of 700-1,000 more students, or 3-4 percent greater than an approach which does not take into account the growth which will occur in the pool of older students. If one assumes that the attendance rate of older students will also increase, their projected impact by 1990 is obviously even greater.

Live-Birth Statistics vs. Public School Enrollment as Pool. Formerly, enrollment projections had been based on a pool built from the number of live births eighteen years previously, because the Department of Public Instruction could not supply sufficient data to use school enrollments as the pool. The availability of school enrollment data provides a more accurate pool since it takes into account state in-migration patterns and accounts for the number of students who actually stay in school until the 12th grade. Although the overall UW-Madison enrollment projection differs by only about one percent by 1990 if it is based on live-birth statistics instead of school enrollments (indicating that until now in-migration has not had a major effect on the overall eighteen-year old population), the use of school enrollment data will assure that in-migration and high school drop-out rates are factored into future enrollment projections. More important, the school enrollment statistics are significantly more accurate as a pool for minority students (and perhaps other sub-groups) than are the live-birth statistics. For

example, only 147 Asian Americans were born in Wisconsin in 1964, while the number enrolled in the 12th grade eighteen years later was 362, so in this case, the 12th grade pool is 2.5 times larger than the live-birth statistics would indicate.

Summary

UW-Madison's undergraduate enrollment is projected to decline slowly over the next ten years, perhaps 11 percent by 1990 and 15 percent by 1995. This decline is smaller than would be expected by the Wisconsin demographics and is built on the assumption that the proportion of eighteen-year olds who attend the University will continue to increase, and that the non-resident undergraduate enrollment and non-traditional age enrollment will remain constant or increase. The use of more optimistic assumptions regarding the enrollment of women, minorities and older students, projects an even smaller decline.

Graduate and professional enrollments are currently projected to remain at the level they have been for the last fifteen years. Therefore, the total enrollment (graduate and undergraduate) for UW-Madison is projected to decline by 6 percent by 1990 and 10 percent by 1995.

Appendix I

WISCONSIN'S STATEWIDE PUBLIC AND NON-PUBLIC SCHOOL ENROLLMENTS BY GRADES

Grade	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Kinderg.	84865	81028	77054	78324	77062	79829	74612	67413	64750	63945	63989	61457	67162
1st Grade	91469	86779	82558	79966	78581	77000	79746	75298	68708	66335	65112	65344	63537
2nd Grade	92637	89806	85172	81037	77262	76905	75295	77250	73610	67196	64553	63016	63485
3rd Grade	94915	92420	90664	85906	81890	78221	77699	75096	77659	74886	68090	65026	63530
4th Grade	95438	94100	90534	88933	83907	80272	76692	75714	75277	77346	73422	66237	63671
5th Grade	94810	95386	93806	90497	88623	83759	80181	75953	76098	74712	76740	72272	65740
6th Grade	93412	94375	95308	93892	91044	88526	83787	79468	76400	76051	74422	75791	71962
7th Grade	92108	94755	94867	95679	94390	91301	89426	83824	81111	77707	76978	74787	76671
8th Grade	91710	91932	94346	94262	95341	93771	90467	88509	83996	80674	77504	75753	74157
9th Grade	89823	92517	92246	94183	93550	95429	94041	90556	88969	84703	81553	77381	76516
10th Gr.	89884	89976	92300	91752	93719	94122	95049	92940	89824	87968	83531	79624	76095
11th Gr.	84675	87073	86784	88627	87763	90572	90490	90853	88667	85107	83841	79236	76398
12th Gr.	77877	80644	81363	80131	81513	81495	84027	83870	83461	81644	79631	78636	75050
Total	1173623	1170791	1157002	1143189	1124645	1111202	1091512	1056744	1028530	998274	969366	934560	913974

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SURVIVAL RATIOS BETWEEN GRADES

Between	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	Most Recent 5-Yr. Average
K-1st Gr.		1.022553	1.018882	1.037792	1.003281	.9991955	.9989603	1.009194	1.019210	1.024479	1.018250	1.021176	1.033845	1.023392
1st-2nd G		.9818190	.9814817	.9815766	.9661856	.9786717	.9778571	.9687006	.9775824	.9779938	.9731364	.9678093	.9715506	.9736145
2nd-3rd G		.9976575	1.009554	1.008618	1.010526	1.012412	1.010324	.9973571	1.005294	1.017335	1.013304	1.007327	1.008157	1.010283
3rd-4th G		.9914134	.9795932	.9809075	.9767304	.9802418	.9804528	.9744527	1.002410	.9939696	.9804503	.9727860	.9791622	.9861557
4th-5th G		.9994551	.9968757	.9995913	.9965142	.9982361	.9988664	.9903641	1.005072	.9924944	.9921651	.9843371	.9924966	.9933130
5th-6th G		.9954119	.9991823	1.000917	1.006044	.9989055	1.000334	.9911076	1.005885	.9993824	.9961184	.9876336	.9957106	.9969460
6th-7th G		1.014377	1.005213	1.003893	1.005304	1.002823	1.010167	1.000442	1.020675	1.017107	1.012189	1.004904	1.011611	1.013297
7th-8th G		.9980892	.9956836	.9936227	.9964674	.9934421	.9908654	.9897457	1.002052	.9946123	.9973876	.9840864	.9915761	.9939429
8th-9th G		1.008799	1.003416	.9982723	.9924466	1.000923	1.002879	1.000984	1.005197	1.008417	1.010896	.9984130	1.010072	1.006599
9th-10th		1.001703	.9976545	.9946448	.9950734	1.006114	.9960180	.9882923	.9919166	.9887489	.9861634	.9763467	.9833809	.9853113
10th-11th		.9687264	.9645239	.9602059	.9565241	.9664209	.9614118	.9558543	.9540241	.9474862	.9530852	.9485820	.9594846	.9525324
11th-12th		.9523944	.9344228	.9233384	.9197310	.9285804	.9277370	.9268427	.9186378	.9207935	.9356575	.9379182	.9471705	.9320355

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Appendix 2

PROJECTION OF STATEWIDE 12TH GRADE ENROLLMENTS USING A COHORT-SURVIVAL METHOD, 1983 - 1995

Grade	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Kinderg.	67162													
1st Grade	63537	68733	0	0	0	0	0	0	0	0	0	0	0	0
2nd Grade	63485	61861	66919	0	0	0	0	0	0	0	0	0	0	0
3rd Grade	63530	64138	62497	67608	0	0	0	0	0	0	0	0	0	0
4th Grade	63671	62650	63250	61631	66672	0	0	0	0	0	0	0	0	0
5th Grade	65740	63245	62232	62827	61219	66226	0	0	0	0	0	0	0	0
6th Grade	71962	65539	63052	62041	62635	61032	66024	0	0	0	0	0	0	0
7th Grade	76671	72919	66411	63890	62866	63468	61844	66901	0	0	0	0	0	0
8th Grade	74157	76207	72477	66008	63503	62486	63083	61469	66496	0	0	0	0	0
9th Grade	76516	74646	76709	72955	66444	63923	62898	63500	61875	66935	0	0	0	0
10th Gr.	76095	75392	73550	75583	71884	65468	62984	61974	62567	60966	65952	0	0	0
11th Gr.	76398	72483	71813	70059	71995	68472	62360	59994	59032	59597	58072	62821	0	0
12th Gr.	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552	0

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Appendix 3

(constant at 1982 rate)

UW-Madison's Undergraduate Enrollment Projection Under the Pessimistic Scenario Using K-12 Cohort Survival Method, 1983 - 1995

Grade	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Kinderg.	67162													
1st Grade	63537	68733	0	0	0	0	0	0	0	0	0	0	0	0
2nd Grade	63485	61861	66919	0	0	0	0	0	0	0	0	0	0	0
3rd Grade	63530	64138	62497	67608	0	0	0	0	0	0	0	0	0	0
4th Grade	63671	62650	63250	61631	66672	0	0	0	0	0	0	0	0	0
5th Grade	65740	63245	62232	62827	61219	66226	0	0	0	0	0	0	0	0
6th Grade	71962	65539	63052	62041	62635	61032	66024	0	0	0	0	0	0	0
7th Grade	76671	72919	66411	63890	62866	63468	61844	66901	0	0	0	0	0	0
8th Grade	74157	76207	72477	66008	63503	62486	63083	61469	66496	0	0	0	0	0
9th Grade	76516	74646	76709	72955	66444	63923	62898	63500	61875	66935	0	0	0	0
10th Gr.	76095	75392	73550	75583	71884	65468	62984	61974	62567	60966	65952	0	0	0
11th Gr.	76398	72483	71813	70059	71995	68472	62360	59994	59032	59597	58072	62821	0	0
12th Gr.	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552	0
T.Fr/12th	.0752709	.0752709	.0752709	.0752709	.0752709	.0752709	.0752709	.0752709	.0752709	.0752709	.0752709	.0752709	.0752709	.0752709
TFreshmen	5919	5649	5360	5085	5038	4915	5051	4804	4375	4209	4141	4181	4074	4407
Sophomore	6563	6522	6225	5906	5603	5551	5416	5565	5293	4821	4638	4563	4607	4489
Junior	7466	7220	7175	6848	6497	6164	6107	5958	6123	5823	5304	5102	5020	5068
Senior	8604	8660	8375	8323	7943	7536	7150	7084	6911	7102	6755	6152	5918	5823
T.Undergr	28552	28051	27135	26162	25082	24167	23724	23411	22702	21955	20837	19998	19620	19788

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Appendix 4

(3-yr.av.*1.015)

UW-MADISON'S UNDERGRADUATE ENROLLMENT PROJECTION UNDER THE LIKELY SCENARIO USING K-12 COHORT SURVIVAL METHOD, 1983 -1995

Grade	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Kinderg.	67162													
1st Grade	63537	68733	0	0	0	0	0	0	0	0	0	0	0	0
2nd Grade	63485	61861	66919	0	0	0	0	0	0	0	0	0	0	0
3rd Grade	63530	64138	62497	67608	0	0	0	0	0	0	0	0	0	0
4th Grade	63671	62650	63250	61631	66672	0	0	0	0	0	0	0	0	0
5th Grade	65740	63245	62232	62827	61219	66226	0	0	0	0	0	0	0	0
6th Grade	71962	65539	63052	62041	62635	61032	66024	0	0	0	0	0	0	0
7th Grade	76671	72919	66411	63890	62866	63468	61844	66901	0	0	0	0	0	0
8th Grade	74157	76207	72477	66008	63503	62486	63083	61469	66496	0	0	0	0	0
9th Grade	76516	74646	76709	72955	66444	63923	62898	63500	61875	66935	0	0	0	0
10th Gr.	76095	75392	73550	75583	71884	65468	62984	61974	62567	60966	65952	0	0	0
11th Gr.	76398	72483	71813	70059	71995	68472	62360	59994	59032	59597	58072	62821	0	0
12th Gr.	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552	0
ResN.Frsh	3700	3617	3483	3355	3373	3340	3484	3363	3 09	3036	3032	3107	3073	3374
NResN.Fr.	1097	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035
Other Fr.	1122	1088	1057	1027	1031	1023	1057	1029	969	952	951	969	961	1031
TFreshmen	5919	5740	5575	5416	5440	5399	5576	5427	5113	5023	5018	5111	5069	5440
Sophomore	6563	6522	6325	6143	5968	5994	5949	6144	5980	5634	5535	5530	5632	5585
Junior	7466	7220	7175	6959	6759	6566	6594	6545	6760	6579	6199	6089	6084	6196
Senior	8604	8660	8375	8323	8072	7840	7616	7649	7591	7841	7631	7190	7063	7057
T.Undergr	28552	28143	27451	26841	26238	25798	25735	25765	25445	25078	24384	23920	23847	24278

OBPA:GT
1/31/1983

Appendix 5 (a)

Projection of Resident New Freshmen Using Separate Pools for Males and Females Where Female Attendance Rate is Assumed Equal to Male's, Based on 12th Grade Enrollment Pool*

Year	Total 12th Gr. Enrollmt	Total Res. New Fresh	Ratio Tot. Res New Frsh to Pool	Male 12th Gr. Enrollmt	Male Res.New Fresh	Ratio of Male New Frsh to Pool	Female 12th Gr. Enrollmt	Female Res.New Fresh	Ratio of Female New Frsh to Pool	Sum of Male & Fem. Res New Frsh	Diff.bet 2-Pool & Single Pool
1975-76	81513	3600	.0441647	N.A.	1866	N.A.	N.A.	1734	N.A.	3600	0
76-77	81495	3165	.0388367	40892	1579	.0386139	40603	1586	.0390612	3165	0
77-78	84027	3411	.0405941	41888	1731	.0413245	42139	1680	.0398681	3411	0
78-79	83870	3746	.0446644	41626	1960	.0470860	42244	1786	.0422782	3746	0
79-80	83461	3850	.0461293	41777	2018	.0483041	41684	1832	.0439497	3850	0
80-81	81644	4043	.0495199	40703	2086	.0512493	40941	1957	.0478005	4043	0
81-82	79631	3654	.0458867	40181	1954	.0486299	39450	1700	.0430925	3654	0
82-83	78636	3700	.0470522	39574	1968	.0497296	39062	1732	.0443398	3700	0
83-84	75050	3617	.0481985	38125	1930	.0506177	36925	1869	.0506177	3799	182
84-85	71206	3484	.0489215	35816	1840	.0513769	35390	1818	.0513769	3658	175
85-86	67557	3355	.0496553	33980	1772	.0521476	33577	1751	.0521476	3523	168
86-87	66933	3373	.0504002	33666	1782	.0529298	33267	1761	.0529298	3543	169
87-88	65297	3340	.0511562	32844	1765	.0537237	32453	1743	.0537237	3508	168
88-89	67102	3484	.0519235	33751	1840	.0545296	33351	1819	.0545296	3659	175
89-90	63818	3363	.0527024	32100	1777	.0553475	31718	1756	.0553475	3532	169
90-91	58122	3109	.0534929	29235	1642	.0561778	28887	1623	.0561778	3265	156
91-92	55916	3036	.0542953	28125	1604	.0570204	27791	1585	.0570204	3188	152
92-93	55020	3032	.0551097	27674	1602	.0578757	27346	1583	.0578757	3184	152
93-94	55547	3107	.0559364	27939	1641	.0587439	27608	1622	.0587439	3263	156
94-95	55125	3130	.0567754	27224	1623	.0596250	27901	1664	.0596250	3287	157
95-96	58552	3374	.0576271	29451	1782	.0605194	29101	1761	.0605194	3544	169

* A one-year lag is incorporated in the 12th grade pool data.

OBPA: GT
5/24/1983

Appendix 5 (b)

UW-Madison's Undergraduate Enrollment Projection Using K-12 Cohort Survival Method Where Female Attendance Rate is Assumed Equal to the Male's, 1983 - 1995

Grade	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Kinderg.	67162													
1st Grade	63537	68733	0	0	0	0	0	0	0	0	0	0	0	0
2nd Grade	63485	61861	66919	0	0	0	0	0	0	0	0	0	0	0
3rd Grade	63530	64138	62497	67608	0	0	0	0	0	0	0	0	0	0
4th Grade	63671	62650	63250	61631	66672	0	0	0	0	0	0	0	0	0
5th Grade	65740	63245	62232	62827	61219	66226	0	0	0	0	0	0	0	0
6th Grade	71962	65539	63052	62041	62635	61032	66024	0	0	0	0	0	0	0
7th Grade	76671	72919	66411	63890	62866	63468	61844	66901	0	0	0	0	0	0
8th Grade	74157	76207	72477	66008	63503	62486	63083	61469	66496	0	0	0	0	0
9th Grade	76516	74646	76709	72955	66444	63923	62898	63500	61875	66935	0	0	0	0
10th Gr.	76095	75392	73550	75583	71884	65468	62984	61974	62567	60966	65952	0	0	0
11th Gr.	76398	72483	71813	70059	71995	68472	62360	59994	59032	59597	58072	62821	0	0
12th Gr.	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552	0
ResN.Fr.*	3700	3799	3658	3523	3543	3508	3659	3532	3265	3188	3184	3263	3227	3544
NResN.Fr.	1097	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035
Other Fr.	1122	1131	1098	1066	1071	1063	1098	1068	1006	988	987	1005	997	1071
TFreshmen	5919	5965	5791	5624	5649	5606	5792	5635	5306	5211	5206	5303	5259	5650
Sophomore	6563	6522	6572	6381	6197	6224	6177	6382	6209	5846	5742	5736	5844	5795
Junior	7466	7220	7175	7231	7020	6818	6848	6795	7021	6831	6432	6317	6311	6429
Senior	8604	8660	8375	8323	8387	8142	7908	7943	7882	8144	7924	7461	7327	7320
T.Undergr	28552	28367	27913	27558	27253	26790	26725	26756	26419	26033	25303	24817	24740	25194

* From Appendix 5 (a).

OBPA:GT
1/31/1983

Appendix 5 (c)

UW-Madison's Total Enrollment Projections Where Female Attendance Rate is Assumed Equal to the Male's, 1983 - 1995

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
12th Gr.Pool*	78636	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552
Freshmen	5919	5965	5791	5624	5649	5606	5792	5635	5306	5211	5206	5303	5259	5650
Sophomore	6563	6522	6573	6381	6197	6225	6177	6382	6209	5847	5742	5736	5843	5795
Junior	7466	7220	7175	7231	7020	6818	6848	6796	7021	6831	6432	6317	6311	6429
Senior	8604	8660	8375	8323	8388	8143	7908	7943	7883	8144	7923	7461	7327	7320
Total Undergrad.**	28552	28367	27914	27559	27254	26791	26725	26756	26419	26033	25304	24817	24741	25194
Special	2855	2900	2950	3000	3050	3100	3100	3100	3100	3100	3100	3100	3100	3100
Master's	4793	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800
Doctoral	4338	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300
Total Graduate	9131	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100
Law	907	920	920	920	920	920	920	920	920	920	920	920	920	920
Medical	645	650	650	650	650	650	650	650	650	650	650	650	650	650
Vet. Med.	0	80	160	240	320	320	320	320	320	320	320	320	320	320
TOTAL ENROLLMENT	42090	42017	41694	41469	41294	40881	40815	40846	40509	40123	39394	38907	38831	39284

* A one year lag is incorporated in the 12th grade pool data.
** From Appendix 5 (b).

OBPA:GT
5/24/1983

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Appendix 6(a) (3-yr. av.*1.015)

Projection of Resident New Freshmen Using Separate Pools for Minority and Majority Students Where Minority Attendance Rate is Assumed Equal to the Majority's.

Year	Total 12th Gr. Enrollmt	Total Res. New Freshmen	Ratio Tot. Res New Frsh to Pool	Minority 12th Gr. Enrollmt	Mino. Res.New Freshmen	Ratio Mino Res New Frsh to Pool	Majority 12th Gr. Enrollmt	Majority Res.New Freshmen	Ratio Majo Res New Frsh to Pool	Sum of Mino.and Majo.Res New Frsh	Diff.bet 2-Pool & Single Pool
1975-76	81513	3600	.0441647	2996	88	.0293725	78517	3512	.0447292	3600	0
76-77	81495	3165	.0388367	3066	91	.0296804	78429	3074	.0391947	3165	0
77-78	84027	3411	.0405941	3273	111	.0339138	80754	3300	.0408648	3411	0
78-79	83870	3746	.0446644	3663	97	.0264810	80207	3649	.0454948	3746	0
79-80	83461	3850	.0461293	3600	116	.0322222	79861	3734	.0467562	3850	0
80-81	81644	4043	.0495199	3686	132	.0358112	77958	3911	.0501680	4043	0
81-82	79631	3654	.0458867	3899	109	.0279559	75732	3545	.0468098	3654	0
82-83	78636	3700	.0470522	4114	104	.0252795	74522	3596	.0482542	3700	0
83-84	75050	3617	.0481985	4199	206	.0491368	70851	3481	.0491368	3688	70
84-85	71206	3484	.0489215	3985	199	.0498739	67221	3353	.0498739	3551	68
85-86	67557	3355	.0496553	3930	199	.0506220	63627	3221	.0506220	3420	65
86-87	66933	3373	.0504002	4041	208	.0513813	62892	3231	.0513813	3439	66
87-88	65297	3340	.0511562	4086	213	.0521521	61211	3192	.0521521	3405	65
88-89	67102	3484	.0519235	4347	230	.0529343	62755	3322	.0529343	3552	68
89-90	63818	3363	.0527024	4275	230	.0537284	59543	3199	.0537284	3429	65
90-91	58122	3109	.0534929	4022	219	.0545343	54100	2950	.0545343	3170	61
91-92	55916	3036	.0542953	3992	221	.0553523	51924	2874	.0553523	3095	59
92-93	55020	3032	.0551097	4050	228	.0561826	50970	2864	.0561826	3091	59
93-94	55547	3107	.0559364	4211	240	.0570253	51336	2927	.0570253	3168	60
94-95	54125	3073	.0567754	4222	244	.0578807	49903	2888	.0578807	3133	60
95-96	58552	3374	.0576271	4697	276	.0587489	53855	3164	.0587489	3440	66

* A one-year lag is incorporated in the 12th grade pool data.

OBPA:GT
5/04/1983

Appendix 6 (b)

UW-Madison's Undergraduate Enrollment Projection Using K-12 Cohort Survival Method Where Minority Attendance Rate is Assumed Equal to the Majority's, 1983 -1995

Grade	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Kinderg.	67162													
1st Grade	63537	68733	0	0	0	0	0	0	0	0	0	0	0	0
2nd Grade	63485	61861	66919	0	0	0	0	0	0	0	0	0	0	0
3rd Grade	63530	64138	62497	67608	0	0	0	0	0	0	0	0	0	0
4th Grade	63671	62650	63250	61631	66672	0	0	0	0	0	0	0	0	0
5th Grade	65740	63245	62232	62827	61219	66226	0	0	0	0	0	0	0	0
6th Grade	71962	65539	63052	62041	62635	61032	66024	0	0	0	0	0	0	0
7th Grade	76671	72919	66411	63890	62866	63468	61844	66901	0	0	0	0	0	0
8th Grade	74157	76207	72477	66008	63503	62486	63083	61469	66496	0	0	0	0	0
9th Grade	76516	74646	76709	72955	66444	63923	62898	63500	61875	66935	0	0	0	0
10th Gr.	76095	75392	73550	75583	71884	65468	62994	61974	62567	60966	65952	0	0	0
11th Gr.	76398	72483	71813	70059	71995	68472	62360	59994	59032	59597	58072	62821	0	0
12th Gr.	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552	0
ResN.Fr.*	3700	3688	3551	3420	3439	3405	3552	3429	3170	3095	3091	3168	3133	3440
NResN.Fr.	1097	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035
Other Fr.	1122	1105	1073	1042	1046	1039	1073	1044	984	966	965	983	975	1047
TFreshmen	5919	5828	5659	5497	5520	5479	5660	5508	5189	5096	5091	5186	5143	5522
Sophomore	6563	6522	6422	6235	6057	6083	6037	6237	6069	5717	5615	5610	5714	5667
Junior	7466	7220	7175	7065	6860	6664	6692	6641	6861	6677	6290	6178	6172	6287
Senior	8604	8660	8375	8323	8194	7957	7729	7762	7703	7959	7745	7296	7166	7159
T.Undergr	28552	28230	27631	27120	26632	26182	26118	26149	25823	25449	24741	24269	24195	24634

* From Appendix 6 (a).

OBPA:GT
1/31/1983

Appendix 6 (c)

UW-Madison's Total Enrollment Projections Where Minority Attendance Rate is Assumed Equal to the Majority's, 1983 - 1995

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
12th Gr.Pool*	78636	75050	71206	67557	66933	65297	67102	63818	58122	55916	55020	55547	54125	58552
Freshmen	5919	5828	5659	5497	5520	5479	5660	5508	5189	5096	5091	5186	5143	5522
Sophomore	6563	6522	6422	6236	6057	6082	6037	6237	6069	5718	5615	5610	5714	5667
Junior	7466	7220	7175	7065	6860	6664	6692	6642	6861	6677	6290	6178	6172	6287
Senior	8604	8660	8375	8323	8195	7957	7729	7762	7704	7959	7745	7296	7166	7159
Total Undergrad.**	28552	28230	27631	27120	26632	26182	26118	26148	25824	25449	24742	24270	24195	24634
Special	2855	2900	2950	3000	3050	3100	3100	3100	3100	3100	3100	3100	3100	3100
Master's	4793	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800
Doctoral	4338	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300	4300
Total Graduate	9131	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100	9100
Law	907	920	920	920	920	920	920	920	920	920	920	920	920	920
Medical	645	650	650	650	650	650	650	650	650	650	650	650	650	650
Vet. Med.	0	80	160	240	320	320	320	320	320	320	320	320	320	320
TOTAL ENROLLMENT	42090	41880	41411	41030	40672	40272	40208	40238	39914	39539	38832	38360	38285	38724

* A one year lag is incorporated in the 12th grade pool data.
** From Appendix 6 (b).

OBPA:GT
5/24/1983

Appendix 7

Projection of Undergraduate Enrollments Using Separate Pools for the Traditional Age and Older Students, 1983 - 1995

Year	Pool 12th Gr. 18...22	Total Undergr. Enroll.	Ratio Undergr. to Pool	Pool 12th Gr. 18...22	Trad'l Age Undergr. Enroll.	Ratio Trad'l Age UG. to Pool	Older Pool (25-34)	Older Undergr. Enroll. (25-34)	Ratio Older Undergr to Pool	Older Undergr. (35 and Over)	Total Older Undergr. (25&Over)	Sum of Trad'l & T.Older Undergr.	Diff.bet Separate & Single Pools
1975-76	401528	25507	.0635248	401528	23591	.0587531	619776	1752	.0028268	164	1916	25507	0
76-77	405146	24882	.0614149	405146	22749	.0561501	647235	1920	.0029665	213	2133	24882	0
77-78	408529	25503	.0624264	408529	23131	.0566202	673804	2148	.0031879	224	2372	25503	0
78-79	411036	25911	.0630383	411036	23495	.0571604	696212	2178	.0031284	238	2416	25911	0
79-80	414366	26428	.0637794	414366	23985	.0578836	721263	2202	.0030530	241	2443	26428	0
80-81	414497	27745	.0669366	414497	25113	.0605867	750011	2338	.0031173	294	2632	27745	0
81-82	412633	28127	.0681647	412633	25444	.0616625	767237	2384	.0031073	299	2683	28127	0
82-83	407242	28552	.0701106	407242	25752	.0632351	784464	2477	.0031576	323	2800	28552	0
83-84	398422	27662	.0694300	398422	25003	.0627555	801690	2531	.0031576	330	2861	27865	202
84-85	386167	27214	.0704715	386167	24598	.0636969	818917	2586	.0031576	337	2923	27521	307
85-86	372080	26614	.0715285	372080	24056	.0646523	836143	2640	.0031576	344	2984	27040	426
86-87	359382	26092	.0726015	359382	23583	.0656221	843952	2665	.0031576	347	3012	26596	504
87-88	346043	25500	.0736905	346043	23049	.0666064	851761	2689	.0031576	351	3040	26089	589
88-89	338095	25288	.0747959	338095	22857	.0676055	859569	2714	.0031576	354	3068	25925	637
89-90	330707	25107	.0759178	330707	22693	.0686196	867378	2739	.0031576	357	3096	25789	682
90-91	321272	24756	.0770566	321272	22376	.0696489	875187	2763	.0031576	360	3124	25500	744
91-92	310255	24266	.0782124	310255	21933	.0706937	861330	2720	.0031576	355	3074	25007	742
92-93	299978	23814	.0793856	299978	21525	.0717541	847473	2676	.0031576	349	3025	24550	736
93-94	288423	23240	.0805764	288423	21006	.0728304	833615	2632	.0031576	343	2975	23981	741
94-95	278730	22796	.0817850	278730	20605	.0739228	819758	2588	.0031576	338	2926	23530	735
95-96	289160	24004	.0830118	289160	21696	.0750317	805901	2545	.0031576	332	2877	24573	569

Note:

Total UG.pool.....3-yr.ave.*1.015
Trad'l age UG. pool 3-yr.ave.*1.015
25-34 age UG. pool .....at 1982 rate
35 & over UG. enroll. ....related to 25-34 at 1982 rate

OBPA:GT
5/24/1983

WIPOPU3

Appendix B(a)

WISCONSIN'S STATEWIDE POPULATION PROJECTIONS

Age	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
0 - 4	346931	355541	364151	372760	381370	389980	391834	393688	395542	397396	399250
5 - 9	344794	345844	346894	347943	348993	350043	358771	367500	376228	384957	393685
10 - 14	392235	383537	374839	366140	357442	348744	349815	350886	351957	353028	354099
15 - 19	466598	451026	435454	419883	404311	388739	380190	371640	363091	354541	345992
20 - 24	450017	450503	450990	451476	451963	452449	437478	422507	407537	392566	377595
25 - 29	401906	409170	416434	423699	430963	438227	438794	439361	439928	440495	441062
30 - 34	348105	358067	368029	377992	387954	397916	405158	412400	419641	426883	434125
35 - 39	271651	286662	301674	316685	331697	346708	356667	366626	376586	386545	396504
40 - 44	230304	238049	245794	253539	261284	269029	283923	298817	313711	328605	343499
45 - 49	219858	221152	222445	223739	225032	226326	233976	241626	249275	256925	264575
50 - 54	233072	229311	225550	221790	218029	214268	215574	216880	218186	219492	220798
55 - 59	229040	227995	226950	225905	224860	223815	220255	216695	213136	209576	206016
60 - 64	206943	208529	210115	211701	213287	214873	213999	213125	212252	211378	210504
65 - 69	184719	185537	186355	187172	187990	188808	190380	191951	193523	195094	196666
70 - 74	145691	148685	151679	154674	157668	160662	161634	162606	163579	164551	165523
75 - 79	107566	109511	111457	113402	115348	117293	119910	122527	125143	127760	130377
80 - 84	70576	71864	73152	74440	75728	77016	78700	80384	82068	83752	85436
85 & Over	55636	57916	60195	62475	64754	67034	69364	71694	74025	76355	78685
Total	4705642	4738900	4772157	4805415	4838672	4871930	4906422	4940914	4975407	5009899	5044391

Estimation of Selected Age Categories

Age	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
15 - 19	466598	451026	435454	419883	404311	388739	380190	371640	363091	354541	345992
18 Yr.Old	93902	90768	87634	84501	81367	78233	76512	74792	73071	71351	69630

Change in 18-Yr. Olds between 1982 and 1990 ..... -20.54%

25 & Over	2705067	2752449.	2799830.	2847212.	2894593.	2941975	2988334	3034693	3081052	3127411	3173770

Change in Age 25 & Over between 1982 and 1990 ..... 13.36%

* Source: Applied Population Laboratory, UW-Extension. Based on 1980 Census.

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4/5/1983

DANE COUNTY'S POPULATION PROJECTIONS

Age	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
0 - 4	20379	20956	21533	22109	22686	23263	23381	23499	23616	23734	23852
5 - 9	20687	20555	20423	20292	20160	20028	20585	21142	21698	22255	22812
10 - 14	23738	23228	22718	22207	21697	21187	21046	20905	20764	20623	20482
15 - 19	32925	31938	30951	29964	28977	27990	27326	26662	25997	25333	24669
20 - 24	44843	44828	44813	44797	44782	44767	43237	41708	40178	38649	37119
25 - 29	37887	38953	40019	41086	42152	43218	43187	43156	43125	43094	43063
30 - 34	29930	30616	31302	31987	32673	33359	34297	35235	36172	37110	38048
35 - 39	20465	21925	23386	24846	26307	27767	28393	29019	29646	30272	30898
40 - 44	14972	15891	16809	17728	18646	19565	20953	22341	23728	25116	26504
45 - 49	13649	13814	13979	14144	14309	14474	15357	16240	17123	18006	18889
50 - 54	13579	13493	13407	13321	13235	13149	13304	13459	13615	13770	13925
55 - 59	12861	12856	12851	12846	12841	12836	12752	12668	12583	12499	12415
60 - 64	10594	10829	11063	11298	11532	11767	11765	11763	11762	11760	11758
65 - 69	8637	8802	8967	9132	9297	9462	9672	9882	10092	10302	10512
70 - 74	6794	6932	7071	7209	7348	7486	7637	7787	7938	8088	8239
75 - 79	5089	5187	5286	5384	5483	5581	5701	5820	5940	6059	6179
80 - 84	3510	3574	3637	3701	3764	3828	3908	3988	4067	4147	4227
85 & Over	3006	3140	3274	3407	3541	3675	3806	3938	4069	4201	4332
Total	323545	327516	331488	335459	339431	343402	346306	349210	352115	355019	357923

Estimation of Selected Age Categories

Age	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
15 - 19	32925	31938	30951	29964	28977	27990	27326	26662	25997	25333	24669
18 Yr.Old	6618	6420	6221	6023	5824	5626	5492	5359	5225	5092	4958

Change in 18-Yr. Olds between 1982 and 1990 ..... -20.30 %

25 & Over	180973	186012	191051	196089	201128	206167	210731	215296	219860	224425	228989

Change in Age 25 & Over between 1982 and 1990 ..... 19.86 %

* Source: Applied Population Laboratory, UW-Extension. Based on 1990 Census.

DBPA:GT
4/12/1983